



Prevention of Caries

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Abstract: Caries is a pathological process that consists in the destruction of hard tooth tissues. This is one of the most common oral diseases in children and adults. Despite the variety of effective methods of treating caries and restoring the normal shape of teeth, it is better to prevent their destruction. The prevention of caries is based on the fight against the main causes of its occurrence.

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Why does caries occur?

The main cause of caries is the vital activity of microorganisms, but the prevention of dental diseases is mainly not aimed at combating them. There are many bacteria in the human oral cavity, and their number can reach one million within 2-4 hours after brushing teeth. They are located on the surface of the teeth and can negatively affect the enamel. Some types of streptococci deserve special attention. These microorganisms are part of the normal microflora, and in the absence of factors that weaken the body's defenses, caries does not develop.

If bacteria get favorable conditions for active reproduction, there are more of them. As a result of their vital activity, organic acid is produced, which literally dissolves areas of enamel. By favorable conditions, we understand several features: a good breeding ground for microorganisms, a decrease in local or general defenses that fight streptococci, or a combination of these factors.

Factors provoking the reproduction of cariesogenic bacteria:

- hereditary predisposition. Thin enamel with a weak structure can be inherited from parents. In this case, the tissues resist the effects of acids worse, and caries can develop from an early age;

- thinning of the enamel associated with impaired mineral metabolism or lack of minerals. The main reasons are diets or poor diet, gastrointestinal diseases, in which nutrients are less absorbed;
- increased saliva viscosity. With insufficient saliva flow, the enamel surface is not washed properly, plaque remains and quickly accumulates on the teeth. Changes in the viscosity and composition of saliva may be associated with systemic diseases, infections, endocrine disorders, etc.;
- crowding of teeth, malocclusion. The tight fit of the teeth to each other makes hygiene difficult, a large amount of plaque and food residues accumulate on and near the contact surfaces;
- lack of hygiene or improper hygiene, eating sweet, viscous food;
- features of labor activity: work in hazardous production associated with inhalation of acid vapors;
- chipped and cracked teeth: exposed enamel and uneven surfaces are more susceptible to harmful effects.

There is one reason for the development of caries, but there are many mechanisms of development. Therefore, it is so important to monitor the general state of health in order to prevent diseases of the oral cavity. However, there are several specific methods of caries prevention.

Oral hygiene

The most common cause of caries is poor oral hygiene. Prevention and treatment of dental caries begin with the removal of soft plaque, because it is a breeding ground for bacteria. Recommendations, compliance with which significantly reduces the risk of enamel destruction:

1. brush your teeth at least twice a day and do it correctly: the movements should be sweeping — from the gums to the edges of the crowns of the teeth. The cleaning process should take at least 3 minutes;
2. when cleaning, pay attention not only to the teeth, but also to the tongue, gums, and inner surface of the cheeks;
3. Choose the right toothbrush: soft bristles are suitable for people suffering from inflammatory gum diseases, periodontal disease. Medium-hard bristles are optimal for most people. A hard brush is indicated for increased plaque formation, as well as a special love for tea and tobacco, such a brush can only be used with good gum health and strong enamel;
4. Be sure to use dental floss. Floss will help to cope with food residues in the interdental spaces;
5. Apply mouthwashes (without ethanol) after eating, during the day.

When choosing a toothpaste, several conditions should be taken into account: large abrasive particles in the composition are contraindicated for people with thinned, damaged enamel, cracks. Even with good oral health, you should not get carried away with abrasive pastes. Pastes with a high content of fluoride can be useful in prevention, but their use is allowed only by adults.

Preventive measures

Common caries prevention products, such as toothpastes containing fluoride and calcium, dental floss with fluorides, can be used almost without restrictions. Even fluorosis is not always a contraindication to the use of such products. If the patient has concomitant diseases of the oral cavity, the dentist may recommend specific measures of home prevention. For example, in chronic inflammatory diseases of the mucous membranes and/or gums, an oral rinse with antibacterial components can be used.

Professional teeth cleaning is shown to absolutely every person. If the initial condition of the oral cavity is good, cleaning is carried out twice a year for preventive purposes. If the patient wears

orthodontic constructions or has a tendency to form a large amount of pigmented plaque due to drinking tea, coffee, smoking, it may be recommended to undergo the procedure 3 times a year.

The choice of cleaning method is determined individually. Air Flow is a technique that has proven itself to be an excellent way to remove soft plaque. The enamel surface is cleaned by blasting with a mixture of air, water and a soft abrasive. Ultrasonic cleaning is used to remove hard deposits — tartar. If there are large subgingival stones, other methods can be used.

The final stage of any cleaning is polishing. The smooth surface of the enamel is less susceptible to plaque accumulation, which also serves as a condition for preventing the disease.

Modern methods of caries prevention provide for the timely restoration of the mineral balance of the hard tissues of the tooth. Remineralizing therapy can be the final stage of occupational hygiene or used as an independent method. In the case of caries at the white spot stage, the doctor repairs the damaged area of the enamel separately. Preventive means are also used for all teeth to saturate the enamel with calcium and fluoride, for example, fluorolac, gel in mouthguards, etc. Additional fluoridation can be carried out at home, but it is important to consult with a dentist about the choice of remedies and how to use them.

Office preventive procedures also include sealing fissures — natural depressions on the chewing surface of teeth. In some people, fissures have a drop-shaped appearance. Through a narrow opening, food particles get into the recess, and it is very difficult to clean them out. This increases the risk of developing caries. Mechanical sealing with a special dental sealant eliminates such risks. Sealing is used in pediatric and adult dentistry, the difference is only in the formulations for the procedure.

Rules of nutrition

One of the ways to prevent caries is proper nutrition. Dentists give the following general recommendations:

- limit the consumption of sweets. It is better to replace confectionery and chocolate, dried fruits, honey; soda — compotes. It is important to know the measure and not to consume too many carbohydrates, and after each meal rinse your mouth;
- a balanced diet. In order for the hard tissues of the tooth to receive the right amount of minerals, the menu should include fermented dairy products, cheese, fresh herbs, nuts, meat, low-fat fish;
- consumption of solid foods. Apples, carrots, and other tough fresh vegetables and fruits are not only useful, but also mechanically clean the enamel, stimulate blood circulation in the gums, which helps maintain oral health;
- attentive attitude to the temperature of food and drinks. It is better not to consume extremely hot or cold foods, and especially not to alternate them. Otherwise, the enamel may not stand up — it may become covered with microcracks, and this contributes to the accumulation of plaque and the proliferation of bacteria;
- careful consumption of solid foods. It is better to eat nuts and other extremely harsh foods carefully, so that the particles do not get stuck in the interdental spaces and fissures.

Preventive examinations

The most reliable method of caries prevention is regular visits to the dentist. In the absence of problems in the oral cavity, you can only contact a hygienist. In addition, it is convenient to combine an examination with a professional dental cleaning. Inspections are carried out at the same frequency — twice a year.

Caries at the initial stage can be cured without a drill: a chalky spot can be eliminated by remineralizing therapy or the Icon method, and a superficial lesion can be eliminated with the least loss of its own tooth tissues. That is why it is worth showing up to the dentist every 6 months, he will promptly identify and quickly eliminate possible violations.

You do not need to wait for a scheduled examination if the following symptoms appear:

1. hypersensitivity of one or more teeth;
2. toothache of any nature and intensity;
3. bleeding gums;
4. Noticeable changes in enamel color.

It is necessary to visit dentists of other directions (orthodontist, orthopedist, surgeon, periodontist) in the presence of certain diseases. It is necessary to correct the bite and position of the teeth with appropriate violations and defects, to treat inflammatory gum diseases and periodontal disease in time. Seals and orthopedic structures should also be replaced in a timely manner.

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